Science, Expertise, and Local Knowledge in Airport Conflicts:
Towards a cosmopolitical Approach

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Towards a cosmopolitical approach

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The transformation of societies into transnational social formations goes along with fundamental and inevitable conflicts. ‘Global complexities’ and social structures ‘beyond societies’ (Urry 2000; 2003) often become visible as specific risk management policies – not at least in the transnational transport infrastructure system. The relations between airports and the localities that host them are basically shaped by conflicts that are characteristic of the mobilization and cosmopolitanization of modern societies (see Kesselring (Chapter 2), in this volume). They also form the spatial shape of airport regions. Hence, the ‘geography of noise’ (Faburel 2001) of airports signifies the territorial impact of globalization and increasing mobilities. Among many other hotly disputed issues, noise attracts great attention, despite various regulatory measures implemented over the past thirty years, such as acoustic aircraft certification, noise thresholds in the vicinity of airports, and sound-proofing subsidies. As demand for air travel continues to grow, resulting in the expansion of air traffic and airports, we are witnessing a proliferation of groups, movements and campaigns protesting against such expansion and its local environmental impact.

Because these conflicts increasingly impinge on the future of air travel, decision-makers begin to attend to the issue of the social acceptability of airports to the local communities where they are located. And since aeromobility is growing more rapidly than the technologies that seek to minimize its negative impacts, there is a mounting need for complementary and/or alternative measures, notably environmental ones, and particularly regarding major international airports. As a result, environmental impact issues are beginning to structure the future of aeromobility, with nuisance caused by aircraft noise playing a major role in this process.

Noise reduction or preventative measures are already constraining factors in several European airports (Eurocontrol 2001). Nevertheless, the idea of internalizing the social costs of aircraft noise is again resurfacing as a major focus in the debate, alongside the question of aircraft noise impact assessment. The environmental externalities of air transport have rarely been internalized. Admittedly, there are several dozen international airports that tax take-off noise, adjust landing fees, or even impose fines for non-compliance with
nominal schedules and trajectories (Morrell and Lu 2000). However, although these measures are all linked to the polluter pays principle (PPP), no airport gauges the amount of this tax or aligns fees to the true impact of noise.

Moreover, actions invoking the PPP, although consistent with the internalization of the social and environmental costs of aviation, have led to a proliferation of scientific models and methods of evaluating these costs. This has resulted to a great extent in evaluations of the social costs of aircraft noise or wider environmental air travel impacts generally being neither implemented nor followed up at the institutional level. There is a crucial lack of consensus about the evaluation of the social and environmental costs of aviation and particularly about: the role that science and expertise play in the internalization of these costs as well as in the emergence of airport-related conflicts. This follows the fact that scientific knowledge and evaluation procedures are now concerns not only for those in charge of their production (the experts) but also for their objects (those who live in the vicinity of airports). In this way this provides an example of the new ‘global complexity’ (Urry 2003) of the ‘mobile risk society’ as Kesselring (2008; Chapter 2, in this volume) puts it.

The overall aim of this chapter is to position official knowledge systems in the context of the politics of air travel, looking at what characterizes decision-making in new governance structures that evolve around airports and air travel. More particularly, this chapter examines three interrelated issues: (a) the diminishing capacity of central authorities to generate and regulate collective action, which becomes increasingly fragmented and subjected to continuous negotiation (Gaudin 1999); (b) the emergence of new notions and categories that begin to characterize discourses about, and the politics of, air travel, such as sustainable development, governance, participatory democracy, environmental justice and territorialization; and (c) the changing socio-political role of scientific expertise (Duran 1999), in particular technical-economic evaluations implemented as parts of transport projects.

The chapter is based on two distinct but linked pieces of research. The first is a study conducted for the French Ministry of Ecology, Development and Sustainable Planning (Faburel and Mikiki 2004), which included interviews with various stakeholders at the Roissy Charles De Gaulle airport, Paris. The second is a more recent, wider in scope and multidisciplinary research project, involving nine international airports and conducted for the Centre National de la Recherche Scientifique and Aéroports de Paris, which operates several airports and airfields in and around the French capital. This research was based on interviews with around 150 stakeholders and investigated participatory procedures and debating forums that have emerged in several major airports, looking in particular at the dynamics of expert opinion and the implementation of knowledge systems, the emergence of sustainable development as a new vector shaping relations between stakeholders, and emerging spaces of collective action (Faburel et al. 2007).

Both these projects have revealed the shifting nature of the socio-political context of scientific knowledge about, and technical evaluations of, the social
and environmental impact of aviation. In particular, they reveal how the instability of such knowledge led major players in the air transport industry to seek dialogue with stakeholders in the local communities that host those major airports, among them local authorities, grass-root movements and associations representing the local economy. This emerging dialogue in turn highlights the limitations of the traditional model of air transport planning and traffic management (based on command and control), leading to a shift in perceptions about the environmental impact of air travel as well as a trend towards more participatory decision-making processes concerning aircraft noise management.

The next section of the chapter examines traditional forms of knowledge about the social costs of aircraft noise, with a focus on techno-scientific discourses. The third section examines the emergence of alternative, territorial forms of knowledge, looking at their struggle against hegemonic discourses and for the legitimation of local contexts in the evaluation of the environmental impacts of airports. Then, by way of conclusion, we consider the emergence of a new system of expertise and governance within airport conflicts, as well as a novel, cosmopolitical approach to airport noise.

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Science, technology and the impact of aircraft noise

One of the reasons long invoked by authorities for not internalizing aircraft noise impact was that social-costs assessment contained many indeterminate and unknown factors (Comité des Applications de l’Académie des Sciences 1999). Yet attempts to evaluate the social costs of transport noise have multiplied over the past twenty-five years (Navrud 2002). At the same time, assessment procedures have grown more sensitive, statistical modelling has become more elaborate, and results appear to be more reliable than before, prompting many to advocate their safe use in evaluations of airport construction or extension projects (Button 2003).

At Amsterdam’s Schiphol airport, in particular, many studies have estimated the social cost of aircraft noise, one of which included a rating of the local population’s well-being (Van Praag and Baarsma 2000). Another took an empirical approach to property depreciation imputable to aircraft noise (Morrell and Lu 2000), combining devaluation assessment with meta-analysis (Schipper 1997, Schipper et al. 2001). Although these initiatives did not lead to concrete solutions, they have revealed the disparity that exists between noise taxes and real social costs (Lu and Morrell 2001). Some of these studies have even suggested compensation to local communities (Baarsma 2001). In the case of London Heathrow airport (Pearce and Pearce 2000), the gap between social costs and real taxes led to the British government’s decision to establish a threshold of aircraft movements at the new Terminal 5. On the whole, the negative impact of aircraft noise (variably characterized and measured in terms of nuisance, depreciation of property values and health problems) has invariably thrust the issue of internalization of social costs into the politics of
air travel. And the perceived disparity between such impact and the related compensatory measures remains one of the keystones of protests against local aircraft noise.

Discussions about the impact of aircraft noise are not restricted to measures that implement the PPP. Other airports, such as Minneapolis St-Paul, San Francisco International, Vienna International, Los Angeles International and Sydney Kingsford Smith, have addressed the impact of noise on local communities through a number of different initiatives, such as the elaboration of alternative indicators in addition to those measuring emission or exposure, the extension of territorial perimeters for sound-proofing subsidies, the creation and expansion of airport-community noise committees, and the funding of alternative local expert counter-opinions.

Therefore, there has been great diversity in methods of evaluating the impact of noise around airports, and no less diversity in measures of internalizing the perceived social costs of such impact. Despite this apparent variety, there have been very few studies of the relationships between airports and their local communities (see Vallet et al. 2000; Faburel 2001, 2003a; 2005; Faburel and Barraqué 2002; Martinez 2001; and Periañez (2001) for the French context), and only recently have we begun to understand both the dynamics of knowledge production and the evolving political struggles that develop in this field. Our research has sought to investigate in more detail how different discourses about aviation noise impact are formed, and how they get incorporated into the political arena by various stakeholders. We have thus identified different models of production and implementation of knowledge concerning the impact of aviation noise.

The model that has enjoyed predominence over the past two decades could be termed technological legitimation. This model is based on techno-scientific discourses, focusing on the validity of research and expertise, and tends to reject a number of aircraft noise impacts on principle. With side effects that are ‘not proven’ and studies that are not ‘convincing’, this model considers social cost evaluations of minor interest at best, highlighting the uncertainties that afflict such assessments. Even nuisance, the only effect of aircraft noise that has recently been universally accepted as harmful to individual health, is swiftly put into perspective as ‘complex’, ‘subjective’, ‘emotional’ or ‘irrational’.

This model, supported chiefly by stakeholders in the air travel industry and central authorities, relies on objectivization through technology, backed up by a particular representation of the validity of knowledge that singularizes disciplines that are ‘pertinent’ to the subject (e.g. psycho-acoustics) as well as relevant scientific methods (e.g. multivariant statistics, economometric analysis, modelling techniques). This objectivization is politically productive: in the face of local ‘passionate reactions’, it rationalizes the debate by legitimizing certain arguments and modes of action and delegitimizing others. For example, these stakeholders believe that measurement outcomes for energy and exposure to sound are much more ‘practical’ and ‘acceptable’ than internalizing taxes that could affect the evolution of the air transport industry differently.
With a strong emphasis on the physical sciences and technology, this model naturally encourages actions based on acoustics, overlooking cultures, codes and regulations. The result is ever greater levels of technical sophistication in the representation of noise generated by airports, from Internet broadcasts of flight trajectories and acoustic imprints of every aircraft in real time (San Francisco, Frankfurt), to increasingly sophisticated maps (Sydney and Geneva) and larger numbers of measurement stations (Chicago O’Hare and Denver International). Technical prowess and aesthetically high-powered communication tools reign supreme. We see this trend notably in the United States (Faburel 2003b).

This technological model (through its chief scientific domain, acoustics) also establishes elements for particular regulatory frameworks espoused by the aviation industry, providing an international certification bulwark against any commercial discrimination of airlines, standard norms and procedures as used by overseeing regulators (such as the Federal Aviation Administration in the USA) as well as aids for the standardization of indicators in acoustic monitoring and other technical services of environmental regulators. In the same logic of this technology-based legitimation (acoustic or other), we witness the proliferation of certifications, benchmark indicators, environmental performance reports and other mechanisms of standardization and comparison of acoustic impact, all perfectly attuned to the technical-normative logic supported by the aviation industry. This in turn consolidates the industry position within political-administrative systems, one effect of which is the lack of research into the socio-spatial impact of air transport.

Despite the focus on the physical sciences, this model also influences the way that social, economic and political debates are framed. In particular, we have examined the political codes that have long determined the (non) evaluation of social costs and, at a deeper level, of aircraft noise impact, codes that reveal the structuring effects of the technical and functional representation of aviation phenomena, especially of their social and environmental impacts. For instance, in light of widespread recommendations by a number of influential economists for the internalization of external costs, monetary valuation of noise is still not used for determining tax, fees or rates, because of the uncertainties regarding monetarization, as set against the ‘precision’ of acoustics.

More generally, however, these political codes are related to the epistemological-republican dogma highlighted by Latour, which elevates certain scientific disciplines to the rank of normative values. This leads to the uniformity of scientific validity and dangerously reduces the value of scientific controversy. To this day, the use made of acoustics, psycho-acoustics and marginalist economics by official expertise and in the discourses of airports is part and parcel of such judgements, the effect of which is to mutilate diversity and to legitimize one single epistemology (technical) and one single political objective (reasoning with emotions).

This political vision of ‘good’ science presents itself as scientific. Its corollary is to divide up reality, with scientific facts on the one side, and
socio-political values on the other. The separation maintained between these two airtight compartments is a necessary condition for the ‘objectivity’ of both data and measures. Conversely, this political vision of science considers socio-political compromise as a form of surrender: ‘In this scheme of things, science is part of the solution of the political problem, the solution of which it renders impossible by continuously threatening to disqualify human assemblies’ (Latour 1999: 59). Supported by this technological legitimation, traditional airport expertise has disqualified local stakeholders by delegitimizing the study of local impacts of aviation noise, making it harder for these to become subjects of both observation and debate.

Local communities and spatial representations of aircraft noise

Developing quite outside the techno-scientific model analyzed above, one finds a myriad of representations of the local impact of aviation noise. Although based on considerably different approaches, these representations point to the emergence of a new model of knowledge production and action in the field of airport noise. Described with reference to a number of different notions and concepts, among them ‘identity’, ‘perception’, ‘experience’, ‘community’, ‘cooperation’, this model can be best conceptualized as territorial. It suggests shared values and interests of people who inhabit the local scale of airports and their surroundings.

This model calls for actions that take into account the collective needs of local communities and the sustainable development of airports. Its approach to internalization calls for extra funds to be invested in those communities and for more conciliatory measures, balancing noise nuisance by way of reparation and compensation. Among such measures and policies are the allocation of airport jobs for local residents, subsidies for training, and creation of observatories of real-estate values.

With this model we witness the emergence of the territorialization of both knowledge and action. Local communities and associations make use of experiences generated by their respective itineraries and established social and political networks in order to build alternative representations of their places and introduce them into the debate. At the heart of this process lies a knowledge of planning, development, environment, local road traffic, public transport, etc., that local communities claim to be neither necessarily nor readily given to central governments, aviation authorities and airport operators. These claims lead to a justification of these communities’ right to control and monitor, a right they feel deprived of. They also produce knowledge that is gradually obtaining recognition from other stakeholders.

Los Angeles International airport provides an interesting example of this process, where a powerful coalition was formed, uniting different local communities and associations in the El Segundo area (Coalition for a Truly Regional Airport Plan). With the help of urban studies specialists, this coalition
sought to develop its own expertise in order to respond to arguments put forward by the air transport industry in the course of impact studies. The role given to local counter-opinions is partly linked to the Community Agreement reached in 2006 between this coalition and the City of Los Angeles, owner of the airport. Here and in other airports around the world, such communities sponsor studies of property value depreciation and health effects of aircraft noise, among other subjects, highlighting issues of identity and belonging, thus producing a kind of knowledge that is lay, local and practical.

While the techno-scientific model generally overrides particular spatial contexts, cultural specificities and modes of governance, the territorial model demands impact indicators that are more in line with the lived experiences of local residents, questioning the emphasis on acoustic metrics and the relative absence of social costs from representations of the environmental impact of aviation. This evolving politics of knowledge provides a key element for understanding the emergence of airport conflicts during the past few decades.

In opposition to the hegemonic model, local stakeholders suggest new ideas and analytical categories (e.g. social equity, environmental justice) as well as alternative research methods (e.g. surveys) that are more likely to represent the ordinary, local experiences of aircraft noise. During a mediation process at Frankfurt International airport, representatives of local associations vented their frustrations with existing expertise about the airport’s local impacts: ‘[the experts] come here, they look around and deliver their results three days later . . . while declaring that their work is scientific.’ In contrast, new evaluation instruments can provide bases for dialogue, especially if local residents participate in the processes of evaluation and monitoring (see Kesselring (Chapter 2), in this volume).

One particular knowledge strategy of local groups consists in providing ‘anti-expert opinions’ through detailed analyses of the conditions under which the expertise sponsored by the champions of airport expansion is produced. In Amsterdam, for instance, environmental and residents’ associations from several international airport areas in Europe, especially London and Amsterdam, got together to commission such a counter-opinion from a research and policy outfit in Delft. In Frankfurt, the Rhein-Main institute, with the support of the Zukunft Rhein-Main association, brought together a group of eight researchers in September 2006 in order to evaluate the methodology used for a study that central authorities have used to justify the construction of a new runway. However, the critique of official expertise and the emergence of counter-opinions are not devoid of contradictions and difficulties. Many local stakeholders, especially in local authorities, hesitate between fighting aircraft noise and capitalizing on the tangible tax income that airports generate.

The constitution of the territorial model of evaluating the environmental impact of aviation provides expertise with an alternative source of legitimacy, namely new forms of local knowledge and know-how. It produces new spatial representations and introduces new experts into the field of airports and air
transport, especially from the human and social sciences. These new forms of knowledge allow for alternative modes of expression and representation by local stakeholders, beyond the limitations of protest and direct action.

However, the territorial model has encountered difficulties in establishing itself as a real alternative. Historically, because it has had to react to the logic of technical objectivization and reification of effects that are at the same time social, and to the uniformity of regulatory norms over different territorial contexts, the consequence is that the hegemonic techno-scientific discourse remains the major reference in debates and conflicts over airport expansion and construction. The reactive nature of the territorial model is illustrated by the reception of debates sponsored by the Commission Consultative de l’Environnement at Roissy CDG (Leroux et al. 2002) and the Regional Dialog Forum in Frankfurt (Sack 2001; Geis 2003; Lévy 2005; Kesselring 2007). Residents’ associations have described studies such as these, which aimed to nourish debate and defuse latent conflicts, as technocratic and devoid of deeper interest in territories and their experience.

One of the consequences of this is that, despite the alternative discourses of local stakeholders such as residents’ groups, who call for greater territorialization of knowledge and modes of intervention, the impact of aircraft noise on airport surroundings remains largely under-investigated, while local identities find it hard to establish themselves as legitimate issues. This lag derives in part from methods of pricing the local costs of aircraft noise. Myths about the structuring effects of mobility and transportation (Offner 1993) separate what should be kept together (namely, airports and their host communities) and perpetuate the strictly functional representation of airport infrastructure, equipment and surroundings, consolidated in notions such as ‘hub’, ‘gateway’ and ‘hinterland’. This particular coding, which links systems of knowledge and value, has contributed to a collective blindness to the potentially complex and multiple effects of noise on local people.

One of the questions that need to be asked is: as local spaces and place dynamics (e.g. residential mobility, spatial organization and social practices), and their multiple attributes (urbanistic, residential, political) finally enter the airport scene, why is it that sciences and knowledge forms that are best placed to represent this trend are slow to respond? And why is it that even today local communities rarely turn to them? We suggest two answers: First, territorial (local) stakeholders, even when producing their own counter-discourses, need to operate within legal constraints. This, and the scope of the airport environmental issues, requires that they deploy the evaluation capacities and resources of central authorities in the political-administrative system. And second, these stakeholders face charges of NIMBYism from both industry and central authorities, who seek to disqualify and undermine residents’ claims and demands.

This charge creates a serious problem for these stakeholders, since it forces residents to seek to detach themselves from the experiences of their own localities in order to reach a higher level of generalization (Lafaye and
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Thévenot 1993), which is necessary to legitimize their interests (Lolive and Tricot 2002). One strategy involves the extension of spatial or temporal scales. In the case of London Heathrow, for example, those who opposed the construction of a new terminal and runway made reference to the impacts generated by climate change caused by air traffic emissions. Everywhere references to future generations and their rights and to remote populations are being used as bases for argumentation, contributing to the removal of local referents from the debate and from the production of expertise.

Despite these limits, the uniformity of a normative position powered by the will to rationalize, and based on ‘universal’ acoustic knowledge, clearly helps generate conflicts whereby, in spite of different demands and modes of protest, action is invariably inspired by experiences of place. These experiences call for an opening of the dominant system of expertise to new forms of knowledge and new modes of governance that are more sensitive to the territories flown over. However, the logic of place (and its deployment of spatial proximity, living experience and concern for the common good) is also complemented by the constitution of inter-airport networks and umbrella organizations, following the reticular structure of air traffic distribution.

In the context of representations of the environmental impact of aviation, and in particular of noise around airports, the analytic sciences have contributed to a lack anchoring of official knowledge in local contexts. However, and considering the importance of environmental issues for the future of aero-mobility, the scientific practice of circumscribing the question of noise within technical referents appears to be, if not completely gone, at least relativized. The fact is that ‘efforts in the past, that largely relied on engineering approaches to confront conflicts between social and environmental sustainability have failed, but nothing has yet emerged to fill the gap’ (Button and Nijkamp 1997: 218). There is, however, a new pluralist expertise evolving around issues of aircraft noise and its effects on local communities, which will be the object of our concluding section.

Towards a cosmopolitical approach to airports’ social and environmental impacts

Taking the issue of the social costs of aircraft noise as a starting point, it seems that monetary valuation can have real operational implications. Economic models and methods can provide more contextualized approaches that can help assuage local concerns through representations of airports’ positive impacts on property values (in part due to increases in jobs and local transport services). However, the expectation of many local stakeholders runs high in airport conflicts, so room must be found for the evaluation of the social costs of aircraft noise. At this point, it would be useful to make greater use of knowledge generated by the human and social sciences, primarily sociology, social psychology, anthropology, social geography and political science. These disciplines stand at the very opposite end to acoustics, psycho-acoustics and
– to a lesser degree – marginalist economics (Barraqué 2003), and can rarely be found in this field, excepting perhaps the analysis of sound phenomena in the urban environment.

This mobilization and coupling of different knowledge traditions would make it possible to highlight and explain certain paradoxes that have become apparent in airport conflicts: while ground sound levels around some major airports have tended to remain more or less stable, or even – according to official data – decrease, nuisance seems to increase, as revealed by some longitudinal analyses (see Katska 1995). In particular, this coupling may help consolidate the monetarization of the social and environmental costs of aircraft noise, through, among other things, understanding the link between ex post satisfaction of households and the sound-proofing of homes in the case of the protection costs method, forecasting the health impacts of noise in the harm costs method, measuring annoyance in the contingent valuation method (Navrud 2002; WHO 2004), or observing criteria for residential choices in the hedonic prices method (Lake et al. 1998).

However, in this prospective emergence of objects of collective learning, apart from including other forms of knowledge and benefiting from their explanatory potential, it is necessary to facilitate interdisciplinary research in order to represent better the complexity and socio-spatial intertwining of aircraft noise impact. This effort would also benefit from scientific controversy, which would test preconceived and commonly used notions that have dominated the field. Such notions put a strain on the relations between stakeholders, more than they contribute to project common interests and compromises. For example, the aviation industry has long claimed that airport neighbourhoods attract new residents. It did so in the first place to oppose the results of fine-tuned observations of micro-spatial dynamics on the municipal scale. Then, when they finally admitted outward movement existed, they invoked the responsibility of local authorities and their ‘lax’ planning, and also the ‘carelessness’ of households in making their residential choices. Interdisciplinary approaches can, at least in part, modulate the still dominant model of linear, causal and deductive representations of the techno-scientific approach to these phenomena. They might also help overcome the technicist rut in which traditional expertise is still stuck to this very day (Faburel and Mikiki 2004), and contribute to the deconstruction of rather tenacious myths.

On the other hand, there is an inextricable link between the production of rationality and the exercise of democracy (Stengers 1997). New evaluation initiatives will not develop without new forms of political action and representation. It remains a fact that the question of noise has not been raised in numerous airport contexts. Although the acoustic basis of statutory instruments is the focus of the current debate, there are also political barriers to the expression of local noise experiences. There are great limitations to the technological framing of the debate: residents cannot be represented by decibels, nor can neighbourhoods and local authorities be represented by statutory zoning.
based on acoustics alone. There is the need to establish the political pertinence of expertise, not just its technical effectiveness. As environmental decisions increasingly turn to intermediary modes of regulation (e.g. contracts), the implementation of deliberative procedures (Callon et al. 2001) regarding the ‘externalities’ of airport operations might go in this direction as well. There are numerous indications of this: Vienna International and its control panel of sustainable development indicators, Los Angeles International with its Community Agreement, and, more recently, Orly’s move to set up a sustainable development charter are just a few examples.

This democratic opening of procedures could open expertise to less recognized sciences or forms of knowledge, specifically local ones that are sensibility-oriented, practical and vernacular. These local forms of knowledge cannot be represented by the traditional sciences (even the social sciences). They correspond to a rationality and a mode of argumentation that never seek detachment. On the contrary, they define themselves via their attachment or proximity to their object. Their legitimacy is founded upon commitment, an ordinary sense of justice, a confrontation with local circumstances, and the identities of places subjected to aircraft noise.

Faced with the opening of borders (territorial, political, sectoral) engendered by mobility, notably aeromobility, their aim is to return to the scale of the surrounding territories, to the anchoring and identity of place. This return, far from being contradictory or regressive in terms of scales or stakes (political, economic, social), can be fully integrated into a cosmopolitical approach (Stengers 1997; Latour 1999) applied to expertise. When one avoids the compartmentalization of spaces and interests, the spaces of the airport and its surroundings appear as a source of fertile perspectives and actions. Born out of the reciprocal relationships between the humans and objects that constitute them, these spaces are by their very nature hybrid and interactive. Following a cosmopolitical approach, local struggles against airport noise point towards demands to slow down, to suspend movement, consequently making room for decisions based on forms of knowledge hitherto not sufficiently examined because of, among other things, lack of time (Lolive and Soubeyran 2007).

This slowing down may function as a counterpart to the acceleration produced by aeromobility. Far from giving rise to simplified or narrow perspectives, it would multiply the beings (human and non-human) concerned with this aeromobility. From a purely socio-political perspective, this opening could also – by taking into account these other forms of knowledge – contribute to new syntheses in the representations of various objects (e.g. noise impacts). However, research into airport conflicts reveals that such syntheses require the full recognition of the discourses conveyed by territorial stakeholders, endowing residents with true expert status, whose specific areas and forms of knowledge complete and complement the products of social science (Thévenot 2006).

The assertion of composite (or hybrid) expertise would contribute to transforming a ‘bald’, or ‘riskless object’ (aircraft noise), into a ‘hairy object’
or a ‘risky attachment’ (Latour 1999: 40). Approached from this angle, airport noise, in its essence, would in fact no longer ‘have fixed and indisputable borders . . . with which no negotiation could succeed since the only thing one might expect from the proposals would be to tire the adversary’ (Latour 1999: 129). Its expected and unexpected consequences can only be analyzed by a mobilization of the human and social sciences in association with the residents’ practical knowledge. This object would then be defined by its multiple links with numerous beings (including residents, places and public authorities) and – confirmed as a co-constructed object – take part in the construction of a world in common where the complexity of airport noise and other environmental impacts of aviation, and aeromobility in general, are recognized.

Bibliography


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